We claim:

1. A speech-to-text encoding and decoding device for use in a network comprising:

a modem that connects with the network to convey information to, and receive information from the network;

a subscriber terminal having an interface that enables communication with the modem, a display interface that communicates with a visual display device to display information, a telephone interface that enables communication with a telephone to convey voice information of a user, and a buffer that receives and stores speech information; and

a processor to decode and display on the display device speech information as text upon receipt of speech information from the network.

2. The device as recited in claim 1, wherein the subscriber terminal further includes:

a memory that stores voice patterns, and wherein

said processor further includes a speech analyzer that recognizes an incoming voice pattern based on information stored in the memory.

3. The device as recited in claim 1, wherein said processor includes a tonal and inflection analyzer that analyzes segments of speech in the buffer to modify visual characteristics of decoded speech information displayed on the display interface.

4. The device as recited in claim 1, wherein said subscriber terminal includes a speech database for storing speech segments identified with certain users, and said processor accesses said database to identify and display the identity of users according to matches between speech segments received in real time and stored in the database.

5. The device as recited in claim 1, wherein said processor includes a detector that responds to subscriber inputs to activate and deactivate speech recognition.

6. The device as recited in claim 5, wherein said detector comprises a DTMF tone detector and said user inputs comprise DTMF tones of a telephone.

7. A method of providing automated speech-to-text translation for a hearing-impaired individual, the method comprising:

receiving at a broadband telephony interface speech packets destined for the hearing impaired individual;

storing the speech packets in a buffer; and

processing the speech packets to display textual representations thereof on a display device .

8. The method as recited in claim 7, further comprising:

storing speech patterns in a database, and

analyzing and comparing incoming speech obtained by processing the speech packets with speech patterns stored in the database in order to provide speaker identification capability.

9. The method as recited in claim 7, further comprising:

analyzing characteristics of incoming speech obtained by processing the speech packets and inserting punctuation in displayed textual representations thereof in response to the analysis.

10. The method as recited in claim 9, wherein said characteristics include at least one of changes in tone, volume, and inflection.

11. The method as recited in claim 7, further comprising:

responding to a command from the subscriber to activate and deactivate speech processing.

12. A speech-to-text encoding and decoding device for use in a network comprising:

a network interface that enables communication with the network;

a subscriber terminal that communicates information with the network interface a display device, and a telephone device or other auditory device; and

a processor that decodes and displays speech information as text on the display device during receipt of real time speech information from the network and that encodes

and/or transmits speech information to the network when speech information is received from the telephone.

13. A speech-to-text translation device comprising:

a subscriber terminal having a network interface that enables communication with a network, a display interface that communicates with a visual display device to display textual information, and a telephone interface that enables communication with a telephone to convey voice information of a user,

said subscriber terminal including a processor utilizing a speech buffer to receive at least one of streamed and real time speech information and to decode and display speech information as text on the display device during receipt of speech information from the network, and a database that enables identification of a prior caller based on speech segments stored in a database.

14. A speech-to-text translation device for use in a network comprising:

a subscriber terminal having a network interface that enables communication with the network, a display interface that communicates with a visual display device to display textual information, and a telephone interface that enables communication with a telephone to convey voice information of a user,

said subscriber terminal including a processor utilizing a speech buffer to receive at least one of streamed and real time speech information and to decode and display speech information as text on the display device during receipt of speech information

from the network and a database that enables identification of a prior caller based on speech segments stored in the database, and

said processor further including a tonal and inflection analyzer that effects analysis of speech based on characteristics including at least one of gender, soft-spoken words, hard-spoken words, shouting, laughter, or human expression.

15. A method of speech-to-text translation comprising:

receiving real time speech information;

converting the real time speech information into text;

analyzing the speech information to determine identity of a caller based on previously stored speech segments; and

displaying at least one of textual representation of the speech, punctuation, obtained as a result of the analyzing step.

16. A method of speech-to-text translation comprising:

receiving real time speech information;

converting the real time speech information into text;

analyzing the speech information to determine an identity of a caller based on previously stored speech segments and at least one of gender, soft-spoken words, hard-spoken words, shouting, laughter, or human expression; and

displaying at least one of textual representation of the speech, punctuation, obtained as a result of the analyzing step.